XIX.—Notes on Mallophaga.—V. By Gordon B. Thompson (Department of Entomology, British Museum of Natural History).

On the Species of Mallophaga described by Theobald (1896).

In his book 'Parasitic Diseases of Poultry,' pp. 26-29, fig. 8 (Gurney & Jackson, London, 1896), F. V. Theobald described, under the name of Goniodes eynsfordii, a species of Mallophaga from the "domestic fowl" which appears to have been overlooked by workers on the Mallophaga. I have made efforts to trace the type-specimens of this species, but have been unsuccessful—for the present, therefore, they must be regarded as lost. For help in this matter I have to record my thanks to Mr. S. G. Jary, of the South Eastern Agricultural College, Wye, Kent. Owing to the extreme arity of this book it is understandable that neither Kellogg (1908) nor Harrison (1916) included the species in their lists of the species of Mallophaga. I am therefore reproducing below Theobald's original description:—

Goniodes eynsfordii Theobald (1896).

"Tick-like in appearance. Ground colour of female pale yellowish white or grey, the lateral bands dark shining chestnut-brown. A double pair of horizontal lateral stripes on each segment, chestnut-brown in colour, much darker towards their outer edges, and forming a ready feature of distinction for the species. Four long bristles on front of head and two large pairs of posterior ones. The 5-jointed antennæ slightly hairy at tip. Metathorax with four lateral bristles. Four anterior abdominal segments with a single lateral bristle, fifth and sixth with two lateral bristles, seventh with four. Anal segments bilobate, with four long and two short bristles. Each segment has four central and three pairs of lateral bristles, except the last, which has two large central ones. Legs thick, a single bristle on the tip of each tibia.

"The male is narrower than the female, bright yellowish brown, borders of the segments very dark brown. Five pairs of fine bristles on the head and one large one on each side of the posterior angle. Each abdominal segment with a pair on each side. Abdomen dark in centre. Legs not so thick as in the female; three hairs on femora of second and third pairs.

"Length: 2, 2.6-2.7 mm.; in 3, 2.8-2.9 mm.

"This species does not seem to leave the head and neck. It is especially abundant in chicks in the above-named portions. Specimens were first sent to me by Mr. Till, of Eynsford, who finds they are most prejudicial to the health of the birds. They are found with their heads buried in amongst the feathers and their bodies in the air, just like a tick. A full account of this species will be found in the Journal of the S.E. Agric. Coll., no. 5."

I have been unable to trace any reference to the species in the Journ. S.E. Agric. Coll. no. 5. On the evidence of Theobald's figure of the female this species is *Lipeurus heterographus* Nitzsch in Giebel (1866).

Type-host:—Panthera tigris Linné.

The original description is as follows:-

"Pale fulvous, head and thorax fulvous yellow, abdomen yellowish white, somewhat quadrate.

"Head transverse, vertex concave, with two trapeziform black spots in the centre, lateral margins situated before the eyes, a black spot at the anterior angle passing to the base of the antennæ and uniting with the diagonal fascize on each side of the occiput. Prothorax subconical smaller than the head. Metathorax transverse narrower than head, posterior margin concave ciliated. Abdomen broadly ovate, hairy. Antennæ, front joint large, subcylindrical; second, smaller; third, clavate and recurved. Legs moderate, tibiæ clavate; ungues slender incurved.

"Length 1 2 mm."

In the short introductory note to the above description Ponton says that he sent specimens to Denny, who agreed that they represented an undescribed species of Trichodectes. No locality is given, and the only indication of the origin of the specimens is in the statement that they were given to the author by Charbonnier, who was a well-known Bristol entomologist.

2. Menopon ptilonorhynchi * Ponton (1871).

Mon. Mier. J., London, vi. p. 8, pl. xei. f. 1; Gurlt, 1878, Arch. Naturgesch. p. 175; Harrison, 1916, 'Parasitology,' ix. p. 43.

Type-host:—Ptilonorhynchus violaccus Vieillot (=P. holosericeus).

The original description runs as follows:-

"Colour bright fulvous. Head obtusely subtriangular; clypeus rotundate, vertex rounded, base concave. Two broad irregular chestnut markings extend from the insertion of the antennæ to the eyes, which are connected at that point by a semilunar chestnut line, a chestnut spot in the centre of the clypeus; prothorax elliptical; metathorax transverse; abdomen ovate, hairy; all the segments, except the last, have a chestnut spot: legs long. tarsi clavate.

" Length, 2-115 mm."

ON THE SPECIES OF MALLOPHAGA DESCRIBED BY Ponton (1870, 1871).

T. Graham Ponton described five species of Mallophaga as new in the 'Monthly Microscopical Journals' for 1870 and 1871. He was an assistant curator in the Bristol Museum during the period 1867-1871. I have made efforts to trace Ponton's types, but have so far been unsuccessful, and they must for the present be regarded as lost. I am indebted to Mr. H. Tetley, Curator of Zoology at the Bristol Museum and Art Gallery, for information regarding Ponton and also for his efforts to trace Ponton's types. As the descriptions are not readily accessible I am reproducing them below, together with bibliographics and notes on the species.

1. Trichodectes tigris Ponton * (1870).

Mon. Mier. J., London, iv. pp. 147-148; Piaget, 1880, Les Pédiculines, p. 391; Kellogg, 1908, Genera Insectorum, Fasc. 66, p. 8; Harrison. Parasitology,' ix. p. 73 †.

^{*} Harrison (1916) lists a species, Philopterus ptilonorhynchi Ponton, off Ptilonorhynchus holosericeus, but this is an error. Ponton described only the two species listed in the present paper from this host.

^{*} In the original paper Ponton's name was spelt "Penton," but I understand the correct spelling is Ponton. The generic name of the louse was spelt "Tricodectes," an obvious mistake.

[†] Harrison (1916) gives the wrong volume.

3. Degeeriella pontoni * Johnston & Harrison (1912).

Proc. Roy. Soc. Qd. 1912, xxiv. p. 12 (nom. nov. for Nirmus nitz-schii Ponton, nec Giebel, 1866, p. 364; 1874, p. 125); Harrison, 1916, 'Parasitology,' ix. p. 121.

Nirmus nitzschii Ponton, 1871, Mon. Micr. J., London, vi. p. 8, pl. xci. f. 2; Gurlt, 1878, Arch. Naturgesch. p. 175; Piaget, 1880, Les Pédiculines, p. 164; Kellogg, 1908, Genera Insectorum, Fasc. 66, p. 27.

Type-host:—Ptilonorhynchus violaceus Vieillot (=P. holosericeus).

The original description of *Nirmus nitzschii* Ponton (nec Giebel, 1866) is as follows:—

"Colour pale yellowish-white. Head panduriform, clypeus rounded, antennæ rather long, second joint longest. Prothorax not so wide as the head; metathorax oblong, trapeziform. Abdomen lanceolate, a long fascicule of hair between each of the four last segments. Legs somewhat clavate. Length 2.538 mm."

As an introductory note to the description of this species Ponton remarks:—"The species is probably the same as that mentioned in Giebel's list of the Halle collection, without either name or description."

4. Philopterus dennyi (Ponton) (1871).

Mon. Micr. J., London, vi. p. 8, pl. xci. f. 3; Gurlt, 1878, Arch. Naturgesch. p. 177; Fiaget, 1880, Les Pédiculines, p. 76; Harrison, 1916, 'Parasitology,' ix. p. 92.

Type-host:—? Momotus mexicanus Swainson (=Prismites mexicanus).

The original description is as follows:-

"Colour tawny. Head triangular, clypeus produced entire; 'trabeculæ large, broadly truncate; antennæ rather long. Clypeus bordered by a chestnut line, with a transverse semilunar marking of the same colour, a similar one on the occiput; a broad irregular chestnut mark extends from the eyes to the prothorax. Prothorax transverse, angles rounded, metathorax transverse. Abdomen ovate, hairy; pale fulvous, with a chestnut border. Length 3·173 mm."

5. Trichodectes leporis Ponton (1871).

Mon. Micr. J., London, vi. p. 8, pl. xci. f. 4; Gurlt, 1878, Arch. Naturgosch. p. 165; Piagot, 1880, Les Pédiculines, p. 407; Kollogg, 1908, Genera Insectorum,' Fasc. 66, p. 7; Harrison, 'Parasitology,' ix. p. 70.

Type-host:—" Lepus cannabinus " *.

The original description runs as follows:-

"Colour bright fulvous yellow, a dark chestnut spot at the eyes connected by a diagonal line with a line of the same colour on the occiput. Head suborbicular; clypeus rounded, vertex convex, lateral margin deeply sinuated; eyes prominent; antennæ small, last joint broadly clavate; protborax transverse; metathorax not so wide as the head. Abdomen ovate, fulvous, hairy. Tibiæ clavate. Length 2.538 mm."

Harrison (1916, p. 70) regards this species as a straggling Colpocephalum and therefore unrecognisable. The figure definitely lends support to this conclusion, and I am in agreement with Harrison that the name should be discarded, more especially in view of the fact that it is recorded off a host belonging to a group from which Mallophaga have never been taken.

It is of interest to note that in the same volume of the journal as the above descriptions (sp. 2-5) appeared, there is a letter to the editor written by H. C. Reichter. dated July 8th, 1871, on p. 107, which reads as follows:-"... Without entering upon the many structural inaccuracies with which Mr. Ponton's plate is literally crowded, I wish simply to notice two errors, which, if uncorrected, are enough to throw the whole subject into confusion. In fig. 3, a presumed new species of the subgenus Docophorus; the legs end in single claws, whereas all the species of the subgenus Docophorus . . . have a pair of claws proceeding from their short twojointed tarsi. The Trichodectes, fig. 4, is figured with double claws, the chief character of the genus being that they are single. In fact, all the species of the obsolete order 'Anoplura' which infest mammals, have single tarsal claws."

^{*} I have been unable to trace this host in the literature.